

REMARKS

In the Official Action mailed 24 August 2006, the Examiner provisionally rejected claims 1-6, 9, 10, 12, 14, 20-27 and 29 for double patenting; provisionally rejected claims 1-10, 12-27 and 29-32 for double patenting; provisionally rejected claim 1 for double patenting; rejected claims 1, 2, 4-6, 11-15, 17, 20, 21, 23-25 and 28-30 under 35 U.S.C. §102(e); rejected claims 3 and 22 under 35 U.S.C. §103(a); rejected claims 7, 8, 18, 19, 31 and 32 under 35 U.S.C. §103(a); rejected claims 9 and 26 under 35 U.S.C. §103(a); rejected claims 10 and 27 under 35 U.S.C. §103(a); and rejected claim 16 under 35 U.S.C. §103(a).

Claims 1-32 remain pending.

The Examiner's rejections are respectively traversed below, and reconsideration is requested.

Provisional Rejection of Claims 1-6, 9, 10, 12, 14, 20-27 and 29 for Double Patenting

The Examiner has provisionally rejected claims 1-6, 9, 10, 12, 14, 20-27 and 29 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6, 9, 10, 13, 14, 1-6, 9, 10 and 13, respectively, of copending Application No. 10/699,766, which was filed on the same day as the present application, and includes the same inventors.

Applicant submits herewith a terminal disclaimer, and the requisite fee.

Accordingly, reconsideration of the rejection of claims 1-6, 9, 10, 12, 14, 20-27 and 29 is respectfully requested.

Provisional Rejection of Claims 1-10, 12-27 and 29-32 for Double Patenting

The Examiner has provisionally rejected claims 1-10, 12-27 and 29-32 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-7, 9, 9-17, 9, 9, 1, 3-7, 10-13, 9 and 9, respectively, of copending Application No. 10/699,756, which was filed on the same day as the present application, and includes the same inventors.

Applicant submits herewith a terminal disclaimer, and the requisite fee.

Accordingly, reconsideration of the rejection of claims 1-10, 12-27 and 29-32 is respectfully requested.

Provisional Rejection of Claim 1 Under 35 U.S.C. §101

The Examiner has provisionally rejected claim 1 under 35 U.S.C. §101 as claiming the same invention as that of claim 8 of copending Application No. 10/699,766.

Applicants will amend Application No. 10/699,766 in order to eliminate the issue of the provisional rejection claiming the same invention.

Accordingly, reconsideration of the rejection of claim 1 is respectfully requested.

Rejection of Claims 1, 2, 4-6, 11-15, 17, 20, 21, 23-25 and 28-30 Under 35 U.S.C. §102(e)

The Examiner has rejected claims 1, 2, 4-6, 11-15, 17, 20, 21, 23-25 and 28-30 under 35 U.S.C. §102(e) as being anticipated by Kundu et al. (US 6,751,723). Reconsideration is requested because the Examiner's reliance on inherency is not supportable. Section 2112 IV, first paragraph of the MPEP states that "to establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference...'" .

With respect to the rejection of independent claim 1, the Examiner states that "features are inherently taught by Kundu, in other words, memory has to store the mission function, the configuration load function to load/receive data from external device(s) and the configuration transfer function to transfer data within the FPGA; and a processor coupled to the memory which fetches and executes said instructions from the memory." (Office Action, page 5) These comments are directed to the claim limitations reading:

"memory storing instructions for a mission function for the integrated circuit, storing instructions for a configuration load function used to receive configuration data via said input port, and storing instructions for a configuration function used to transfer the configuration data to the programmable configuration points within the configurable logic array; and a processor coupled to the memory which fetches and executes said instructions from the memory".

Applicants respectively disagree with Examiner's position. Applicant submits that Kundu does not inherently teach any of the just quoted elements of claim 1, with the possible exception of storing instructions for a mission function.

As the Examiner acknowledges by the reliance on inherency, Kundu does not describe any structure that performs a process corresponding to the configuration load and configuration

transfer functions recited in the claims. At column 1, line 38 to column 1, line 46, Kundu describes two approaches used in stand alone FPGA products for programming the FPGA. In the first approach the FPGA is permanently programmed by the user. In the second approach, the FPGA is changeably programmed by the user, with the example cited as disclosed in Freeman (US 4,870,302). In column 11, line 33 to column 11, line 37 Freeman describes that “the master configurable logic array is capable of going into the nonvolatile memory with addresses to select particular data to be retrieved from the memory to be used to configure each of the slave configurable arrays.” Thus Freeman describes in this example a technique utilizing off chip resources (master FPGA) to load configuration data and transfer it to configuration points in a configurable logic array (slave FPGA). The FPGA of Kundu is likely, or at least possibly, configured in the same way as described by Freeman.

Therefore it is not necessarily true that Kundu would utilize the on chip processor it describes, to fetch and execute instructions from memory for “a configuration load function used to receive configuration data via said input port, and storing instructions for a configuration function used to transfer the configuration data to the programmable configuration points within the configurable logic array; and a processor coupled to the memory which fetches and executes said instructions from the memory” as recited in claim 1. Thus, the Examiner’s position of inherency is incorrect, and reconsideration is requested.

Claims 2, 4-6, 11-15, and 17 depend from claim 1, and are patentable for at least the same reasons as claim 1.

Examiner states that Claim 20 is rejected based on the same rational as the rejection of claim 1 (Office Action, page 7). Claim 20 recites a process of storing the three types of programs mentioned above in connection with claim 1, into memory on an integrated circuit including a processor to execute the programs and a configurable logic array. Accordingly, it distinguishes over Kundu for basically the same reasons as claim 1.

Claims 21, 23-25, and 28 depend from claim 20, and are patentable for at least the same reasons.

Accordingly, reconsideration of the rejection of claims 1, 2, 4-6, 11-15, 17, 20, 21, 23-25 and 28-30 is respectfully requested.

Rejection of Claims 3 and 22 under 35 U.S.C. §103(a)

The Examiner has rejected claims 3 and 22 under 35 U.S.C. §103(a) as being unpatentable over Kundu in view of Hsu et al. (US 5,359,570).

Claim 3 depends from claim 1, and claim 22 depends from claim 20, and therefore such claims are patentable for the reasons discussed above and because of the unique combinations recited.

Accordingly, reconsideration of the rejection of claims 3 and 22 is respectfully requested.

Rejection of Claims 7, 8, 18, 19, 31 and 32 under 35 U.S.C. §103(a)

The Examiner has rejected claims 7, 8, 18, 19, 31 and 32 under 35 U.S.C. §103(a) as being unpatentable over Kundu in view of Sun et al. (US 6,401,221).

Claims 7 and 8 depend from claim 1, and claims 31 and 32 depend from claim 20, and therefore such claims are patentable for the reasons discussed above and because of the unique combinations recited.

Independent claim 18 requires a configuration load function that includes instructions executable by the processor on the chip, and that includes a monitoring process for the configuration load function. Neither Kundu, as discussed above, nor Sun et al. describe such a process. Accordingly, the prima facie case is incomplete. Claim 19 depends from claim 18 and is patentable for at least the same reasons.

Accordingly, reconsideration of the rejection of claims 7, 8, 18, 19, 31 and 32 is respectfully requested.

Rejection of Claims 9 and 26 under 35 U.S.C. §103(a)

The Examiner has rejected claims 9 and 26 under 35 U.S.C. §103(a) as being unpatentable over Kundu in view of Sun et al. (US 5,901,330).

Claim 9 depends from claim 1, and claim 26 depends from claim 20, and therefore are patentable for the reasons discussed above and because of the unique combinations recited.

Accordingly, reconsideration of the rejection of claims 9 and 26 as is respectfully requested.

Rejection of Claims 10 and 27 under 35 U.S.C. §103(a)

The Examiner has rejected claims 10 and 27 under 35 U.S.C. §103(a) as being unpatentable over Kundu in view of Lawman (US 6,028,445).

Claim 10 depends on claim 1, and claim 27 depends from claim 20, and therefore such claims are patentable for the reasons discussed above and because of the unique combinations recited.

Accordingly, reconsideration of the rejection of claims 10 and 27 is respectfully requested.

Rejection of Claim 16 under 35 U.S.C. §103(a)

The Examiner has rejected claim 16 under 35 U.S.C. §103(a) as being unpatentable over Kundu in view of Akao et al. (US 5,900,008).

Claim 16 depends from claim 1, and therefore is patentable for the reasons discussed above and because of the unique combination recited.

Accordingly, reconsideration of the rejection of claim 16 is respectfully requested.

CONCLUSION

It is respectfully submitted that this application is now in condition for allowance, and such action is requested.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (MXIC 1520-1).

Respectfully submitted,

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Mark A. Haynes, Reg. No. 30,846

HAYNES BEFFEL & WOLFELD LLP
P.O. Box 366
Half Moon Bay, CA 94019
(650) 712-0340 phone
(650) 712-0263 fax